pass away by solution of what is evidently an embolism, or by the establishment of collateral circulation, without leaving disorganization.

Yours, &c. ————————.

The following year, about six months from the date of the last letter, I was greatly and very pleasantly surprised by Mrs. ——— walking into my consulting-room, apparently in perfect health. In O. D., V. = $\frac{20}{30}$, O. S., V. = $\frac{20}{20}$. There were a few splotches in the right eye-ground, while in O. S. all traces of the disease had disappeared. The aphasia had so far disappeared that she held her own in the conversation with little difficulty, and called the letters on the test-card correctly without hesitating.

ABSENCE OF THE OPTIC CHIASM AND OTHER CEREBRAL COMMISSURES; TEMPORAL HEMIANOPIA.

By W. S. LITTLE, M.D.,
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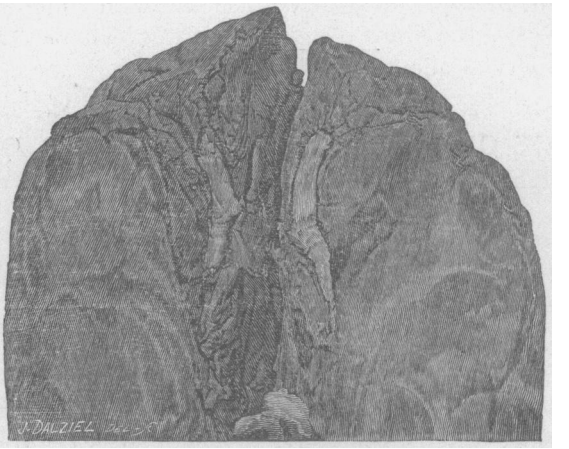
Dr. A. W. Wilmarth, assistant physician and pathologist to the Pennsylvania Institution for Feeble Minded Children, at Elwyn, Penn., made a post-mortem examination upon a male child, who died quite recently, from chronic meningitis with effusion, finding certain variations in the cerebral substance and absence of several commissural parts, among them being the optic chiasm. No ophthalmoscopic examination of the eyes had been made. The visual fields had been studied as exactly, as the low order of intellect of the patient enabled Dr. Wilmarth to accomplish it. Through the courtesy of Dr. I. N. Kerlin, superintendent of the Institution, I am enabled to present a photograph of the base of the brain, taken by Dr. Wilmarth, along with the notes of the eye symptoms and general condition as reported by him.

D. M., male, aged ten. Epileptic. Mute. Idiot. Alter-

nating divergent strabismus existed. Temporal hemianopia was ascertained to be present, by covering one eye and snapping with the fingers in front of the other eye, finding the point where the lids would close, to escape the threatened blow; this was repeated several times to avoid error, and the line of blindness extended from the outer side, to the vertical median line for each eye, the nasal half of each retina being involved. The commissures of this brain showed a singular lack of development. The corpus callosum ended posteriorly just in front of the pineal gland, leaving this body and the tubercula quadrigemina exposed. The middle and posterior commissures were entirely wanting. The anterior commissure was normal in size and appearance. There was no optic commissure;



a small projection was found on the inner side of each nerve, where it should have been, but they did not touch by at least one quarter of an inch. No lesion was found in the occipital lobe or in the course of the fibres in the optic tract to explain the peculiarity of vision. The left hemisphere was smaller than the right, and the opposite side of the body was paralyzed, and less nourished than the other. The rarity[1] of the cerebral

[1] Vesal, 1555 (G. H. Meyer), in Arch. für Anatomie von Du Bois-Reymond und Reichert (1870), p. 523 (Holzschnitt).
Prochaska—Klein—Nicholaus de Janaua (J. F. Meckel), Handb. d path. Anat. I. Bd., p. 398.
Graefe und Sæmisch, II. Cap. VI. p. 100. Manz.

condition, especially absence of the optic chiasm with temporal hemianopia, makes the specimen valuable. The existence of temporal hemianopia in this case is instructive, as pressure on the chiasm, either by a tumor or from effusion, gives the same symptoms in the visual field; but in this case, the temporal hemianopia was recognized fully a year before symptoms of compression came on, after which, death ensued in three to four weeks. The fluid within the cranial cavity was estimated at three ounces. That there was no compression in the earlier stages of the meningitis, which was chronic, is impossible to say, but it is doubtful.

A longitudinal section of one optic nerve and a cross section of the other, is to be made at the point where an attempt at forming the chiasm exists; a description of the microscopical appearances of the fibres of the optic nerves will be submitted to the Society at another time.

SOME REMARKS ON ASTHENOPIA AND THE CHANGES IN REFRACTION IN ADOLESCENT AND ADULT EYES.

BY WILLIAM F. NORRIS, M.D.,
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IN taking up for discussion a subject so well worn and threadbare, I must ask the indulgence of the Society, if in an attempt to emphasize what appear to me important convictions, I repeat to some extent facts and statements with which we are all familiar. I shall, however, be brief, and hope thus to avoid producing in your minds impressions similar to the mental shudder which comes over us when after a long morning's work we face "another refraction case," or to the sigh of relief with which we at last jot down the correction ordered for our patient. Let us consider for a moment the normal growth of the eyeball, how, starting in the new-born child with an average visual axis of 17.5342 mm., we find in the